

SUBCHAPTER III—INTERIM MANDATORY  
SAFETY STANDARDS FOR UNDER-  
GROUND COAL MINES

**§ 861. Mandatory safety standards for under-  
ground mines**

**(a) Coverage; enforcement; review**

The provisions of sections 862 through 878 of this title shall be interim mandatory safety standards applicable to all underground coal mines until superseded in whole or in part by improved mandatory safety standards promulgated by the Secretary under the provisions of section 811 of this title, and shall be enforced in the same manner and to the same extent as any mandatory safety standard promulgated under section 811 of this title. Any orders issued in the enforcement of the interim standards set forth in this subchapter shall be subject to review as provided in subchapter I of this chapter.

**(b) Purpose; initiation of studies and research**

The purpose of this subchapter is to provide for the immediate application of mandatory safety standards developed on the basis of experience and advances in technology and to prevent newly created hazards resulting from new technology in coal mining. The Secretary of the Interior in coordination with the Secretary shall immediately initiate studies, investigations, and research to further upgrade such standards and to develop and promulgate new and improved standards promptly that will provide increased protection to the miners, particularly in connection with hazards from trolley wires, trolley feeder wires, and signal wires, the splicing and use of trailing cables, and in connection with improvements in vulcanizing of electric conductors, improvement in roof control measures, methane drainage in advance of mining, improved methods of measuring methane and other explosive gases and oxygen concentrations, and the use of improved underground equipment and other sources of power for such equipment.

(Pub. L. 91-173, title III, §301, Dec. 30, 1969, 83 Stat. 765; Pub. L. 95-164, title II, §203, Nov. 9, 1977, 91 Stat. 1317.)

AMENDMENTS

1977—Subsec. (b). Pub. L. 95-164, §203(a), substituted “The Secretary of the Interior in coordination with the Secretary shall immediately initiate studies” for “The Secretary shall immediately initiate studies”.

Subsecs. (c), (d). Pub. L. 95-164, §203(b), struck out subsec. (c) which related to the modification of standards, and subsec. (d) which related to the applicability of section 553 of title 5 in cases where the provisions of sections 862 to 878 of this title had provided that certain actions, conditions, or requirements be carried out as prescribed by the Secretary or the Secretary of Health, Education, and Welfare.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-164 effective 120 days after Nov. 9, 1977, except as otherwise provided, see section 307 of Pub. L. 95-164, set out as a note under section 801 of this title.

EFFECTIVE DATE

Subchapter operative 90 days after Dec. 30, 1969, except to the extent an earlier date is specifically pro-

vided for in Pub. L. 91-173, see section 509 of Pub. L. 91-173, set out as a note under section 801 of this title.

**§ 862. Roof support**

**(a) Roof control plan; contents; review; availability**

Each operator shall undertake to carry out on a continuing basis a program to improve the roof control system of each coal mine and the means and measures to accomplish such system. The roof and ribs of all active underground roadways, travelways, and working places shall be supported or otherwise controlled adequately to protect persons from falls of the roof or ribs. A roof control plan and revisions thereof suitable to the roof conditions and mining system of each coal mine and approved by the Secretary shall be adopted and set out in printed form within sixty days after the operative date of this subchapter. The plan shall show the type of support and spacing approved by the Secretary. Such plan shall be reviewed periodically, at least every six months by the Secretary, taking into consideration any falls of roof or ribs or inadequacy of support of roof or ribs. No person shall proceed beyond the last permanent support unless adequate temporary support is provided or unless such temporary support is not required under the approved roof control plan and the absence of such support will not pose a hazard to the miners. A copy of the plan shall be furnished the Secretary or his authorized representative and shall be available to the miners and their representatives.

**(b) Creation of dangers by roof falls**

The method of mining followed in any coal mine shall not expose the miner to unusual dangers from roof falls caused by excessive widths of rooms and entries or faulty pillar recovery methods.

**(c) Location and supply of roof support material; safety devices for roof work**

The operator, in accordance with the approved plan, shall provide at or near each working face and at such other locations in the coal mine as the Secretary may prescribe an ample supply of suitable materials of proper size with which to secure the roof of all working places in a safe manner. Safety posts, jacks, or other approved devices shall be used to protect the workmen when roof material is being taken down, crossbars are being installed, roof bolt-holes are being drilled, roof bolts are being installed, and in such other circumstances as may be appropriate. Loose roof and overhanging or loose faces and ribs shall be taken down or supported. Except in the case of recovery work, supports knocked out shall be replaced promptly.

**(d) Roof bolts**

When installation of roof bolts is permitted, such roof bolts shall be tested in accordance with the approved roof control plan.

**(e) Recovery of roof bolts**

Roof bolts shall not be recovered where complete extractions of pillars are attempted, where adjacent to clay veins, or at the locations of other irregularities, whether natural or otherwise, that induce abnormal hazards. Where roof

bolt recovery is permitted, it shall be conducted only in accordance with methods prescribed in the approved roof control plan, and shall be conducted by experienced miners and only where adequate temporary support is provided.

**(f) Safety inspections; correction of dangerous conditions**

Where miners are exposed to danger from falls of roof, face, and ribs the operator shall examine and test the roof, face, and ribs before any work or machine is started, and as frequently thereafter as may be necessary to insure safety. When dangerous conditions are found, they shall be corrected immediately.

(Pub. L. 91-173, title III, §302, Dec. 30, 1969, 83 Stat. 766.)

REFERENCES IN TEXT

For the operative date of this subchapter, referred to in subsec. (a), see section 509 of Pub. L. 91-173, set out as an Effective Date note under section 801 of this title.

**§ 863. Ventilation**

**(a) Equipment; approval; daily examinations**

All coal mines shall be ventilated by mechanical ventilation equipment installed and operated in a manner approved by an authorized representative of the Secretary and such equipment shall be examined daily and a record shall be kept of such examination.

**(b) Standards for air in work areas**

All active workings shall be ventilated by a current of air containing not less than 19.5 volume per centum of oxygen, not more than 0.5 volume per centum of carbon dioxide, and no harmful quantities of other noxious or poisonous gases; and the volume and velocity of the current of air shall be sufficient to dilute, render harmless, and to carry away, flammable, explosive, noxious, and harmful gases, and dust, and smoke and explosive fumes. The minimum quantity of air reaching the last open crosscut in any pair or set of developing entries and the last open crosscut in any pair or set of rooms shall be nine thousand cubic feet a minute, and the minimum quantity of air reaching the intake end of a pillar line shall be nine thousand cubic feet a minute. The minimum quantity of air in any coal mine reaching each working face shall be three thousand cubic feet a minute. Within three months after the operative date of this subchapter, the Secretary shall prescribe the minimum velocity and quantity of air reaching each working face of each coal mine in order to render harmless and carry away methane and other explosive gases and to reduce the level of respirable dust to the lowest attainable level. The authorized representative of the Secretary may require in any coal mine a greater quantity and velocity of air when he finds it necessary to protect the health or safety of miners. Within one year after the operative date of this subchapter, the Secretary or his authorized representative shall prescribe the maximum respirable dust level in the intake aircourses in each coal mine in order to reduce such level to the lowest attainable level. In robbing areas of anthracite mines, where the air currents cannot be controlled and measurements of the air cannot

be obtained, the air shall have perceptible movement.

**(c) Line brattice; functions; exceptions; repairs; flame resistant material**

(1) Properly installed and adequately maintained line brattice or other approved devices shall be continuously used from the last open crosscut of an entry or room of each working section to provide adequate ventilation to the working faces for the miners and to remove flammable, explosive, and noxious gases, dust, and explosive fumes, unless the Secretary or his authorized representative permits an exception to this requirement, where such exception will not pose a hazard to the miners. When damaged by falls or otherwise, such line brattice or other devices shall be repaired immediately.

(2) The space between the line brattice or other approved device and the rib shall be large enough to permit the flow of a sufficient volume and velocity of air to keep the working face clear of flammable, explosive, and noxious gases, dust, and explosive fumes.

(3) Brattice cloth used underground shall be of flame-resistant material.

**(d) Pre-shift examinations and tests; scope; violations of mandatory standards; notification; posting of "DANGER" signs; restriction of entry; records; re-entry**

(1) Within three hours immediately preceding the beginning of any shift, and before any miner in such shift enters the active workings of a coal mine, certified persons designated by the operator of the mine shall examine such workings and any other underground area of the mine designated by the Secretary or his authorized representative. Each such examiner shall examine every working section in such workings and shall make tests in each such working section for accumulations of methane with means approved by the Secretary for detecting methane and shall make tests for oxygen deficiency with a permissible flame safety lamp or other means approved by the Secretary; examine seals and doors to determine whether they are functioning properly; examine and test the roof, face, and rib conditions in such working section; examine active roadways, travelways, and belt conveyors on which men are carried, approaches to abandoned areas, and accessible falls in such section for hazards; test by means of an anemometer or other device approved by the Secretary to determine whether the air in each split is traveling in its proper course and in normal volume and velocity; and examine for such other hazards and violations of the mandatory health or safety standards, as an authorized representative of the Secretary may from time to time require. Belt conveyors on which coal is carried shall be examined after each coal-producing shift has begun. Such mine examiner shall place his initials and the date and time at all places he examines. If such mine examiner finds a condition which constitutes a violation of a mandatory health or safety standard or any condition which is hazardous to persons who may enter or be in such area, he shall indicate such hazardous place by posting a "DANGER" sign conspicuously<sup>1</sup> at all points which persons enter-

<sup>1</sup> So in original. Probably should be "conspicuously".